

WHAT IS CLAIMED IS:

- 5 1. A fixture, comprising:
a base with an opening in its center portion;
a movable pawl provided on the base for fixing an electronic component; and
at least one pair of positioning walls for positioning the electronic component.
- 10 2. The fixture according to claim 1, wherein the movable pawl is supported by the base through a thin-wall part having a relatively thin wall thickness so as to be in an elastically displaceable state.
- 15 3. The fixture according to claim 2, wherein a wall thickness of the base is thicker than that of the thin-wall part.
- 20 4. The fixture according to claim 2, wherein the thin-wall part has a cross-sectional shape bent or curved in a substantially C-, J-, or V-shaped form.
- 25 5. The fixture according to claim 1, wherein the base has a substantially rectangular frame-like planar shape with an opening in its center portion.
- 30 6. The fixture according to claim 5, wherein the movable pawl is formed at least on one side of four sides excluding four corners.
7. The fixture according to claim 1, wherein a slope with its lower end located on a side of the opening is formed on an upper portion of the movable pawl.
8. The fixture according to claim 1, wherein the at least one pair of positioning walls are inner wall faces of the base.
- 35 9. The fixture according to claim 1, wherein an end face of the movable pawl functions as the at least one pair of positioning walls.

10. The fixture according to claim 1, wherein the movable pawl and the at least one pair of positioning walls are formed of an insulating material.

11. The fixture according to claim 1, wherein the base, the movable pawl,
5 and the at least one pair of positioning walls are formed integrally using the same material.

12. A circuit board with a fixture, comprising;
a fixture mounted on a circuit board, for placing an electronic
10 component; and
electrodes formed on the circuit board with the fixture,
wherein the fixture comprises a movable pawl for fixing an
electronic component and at least one pair of positioning walls for
positioning an electronic component, and
15 the electrodes are exposed between the at least one pair of
positioning walls.

13. The circuit board with a fixture according to claim 12, wherein the
movable pawl is supported through a thin-wall part having a relatively thin
20 wall thickness so as to be in an elastically displaceable state.

14. The circuit board with a fixture according to claim 13, wherein the
fixture is fixed to the circuit board by adhering thereto by its bottom face,
and
25 a wall thickness of the fixture at the bottom face is thicker than that
of the thin-wall part.

15. The circuit board with a fixture according to claim 13, wherein the
thin-wall part has a cross-sectional shape bent or curved in a substantially
30 C-, J-, or V-shaped form.

16. The circuit board with a fixture according to claim 12, wherein the
fixture has a substantially rectangular frame-like planar shape with an
opening in its center portion.
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17. The circuit board with a fixture according to claim 16, wherein the
movable pawl is formed at least on one side of four sides excluding four

corners.

18. The circuit board with a fixture according to claim 12, wherein a slope with its lower end located on a side where the electronic component is positioned is formed on an upper portion of the movable pawl.

19. The circuit board with a fixture according to claim 12, wherein the circuit board with a fixture has a first surface provided with the fixture and the electrodes and a second surface opposite to the first surface, and electrodes connected to the electrodes formed on the first surface are formed on the second surface.

20. An electronic-component mounted body, comprising:
a circuit board with electrodes;
a fixture; and
an electronic component with electrodes,
the electronic component being placed on the circuit board using the fixture,
wherein the fixture comprises a movable pawl and at least one pair of positioning walls,
the movable pawl fixes the electronic component to the circuit board,
the at least one pair of positioning walls control a position of the electronic component in a direction parallel to a surface of the circuit board with the electronic component placed therebetween, and
the electrodes of the electronic component are connected to the electrodes on the circuit board formed between the at least one pair of positioning walls.

21. The electronic-component mounted body according to claim 20, wherein the movable pawl presses the electronic component toward the circuit board.

22. The electronic-component mounted body according to claim 20, wherein the electronic component is a semiconductor chip, a BGA, or a CSP.

23. The electronic-component mounted body according to claim 20,

wherein the electrodes of the electronic component and the electrodes on the circuit board are connected to each other with a conductive adhesive interposed therebetween.

5 24. The electronic-component mounted body according to claim 20, further comprising bumps formed on the electrodes of the electronic component or on the electrodes on the circuit board.

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A4 10 25. The electronic-component mounted body according to claim 24, wherein the bumps and the electrodes on which the bumps are not formed are connected to each other with a conductive adhesive interposed therebetween.

15 26. The electronic-component mounted body according to claim 20, further comprising a fixing plate with a larger outer dimension than that of the electronic component,
wherein the fixing plate is attached to the electronic component, the movable pawl indirectly fixes the electronic component through the fixing plate, and
20 the at least one pair of positioning walls indirectly control a position of the electronic component through the fixing plate.

25 27. The electronic-component mounted body according to claim 26, wherein the fixing plate and the at least one pair of positioning walls are formed to have shapes engaging with each other, and with the shapes, a position of the fixing plate is controlled and/or the fixing plate is fixed.

30 28. The electronic-component mounted body according to claim 26, wherein a slope is formed at a periphery of a lower face of the fixing plate.

29. The electronic-component mounted body according to claim 26, wherein the fixing plate is attached to the electronic component with an elastic adhesive layer interposed therebetween.

35 30. A method of manufacturing an electronic-component mounted body, comprising:
providing a circuit board provided with a fixture and electrodes, the

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fixture having a movable pawl and at least one pair of positioning walls, and the electrodes being formed to be exposed between the at least one pair of positioning walls; and

5 connecting electrodes of an electronic component and the electrodes on the circuit board by fitting the electronic component between the at least one pair of positioning walls and fixing the electronic component by the movable pawl.

10 31. The method of manufacturing an electronic-component mounted body according to claim 30, further comprising conducting a continuity test for connections between the electrodes of the electronic component and the electrodes on the circuit board after connecting them.

15 32. The method of manufacturing an electronic-component mounted body according to claim 31, further comprising, after conducting the continuity test, injecting an underfill between the electronic component and the circuit board.

20 33. The method of manufacturing an electronic-component mounted body according to claim 31, further comprising, after conducting the continuity test, sealing the electronic component with resin.

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